



High Country Tek, Inc.

Advance Information - **DVC 710**

Electronic Control Solutions for the Global Fluid Power Industry



High Country Tek, Inc. (HCT)

The Fluid Power Industries premier Independent electro-hydraulic controls supplier with best in class products, service and training.

HCT provides the most 'Ruggedized' electronic control solutions for a wide variety of applications that are successfully applied across the globe in all areas of the fluid power industry.

The new generation of HCT controllers starts with the market driven development of the **DVC 710 Master Module**.

More I/O, more user features, faster operation and more value makes this a very compact and versatile controller solution that offers all the benefits of our proven existing DVC range with many additional options for cost effective and expandable system control.



Standard HCT Product Features:

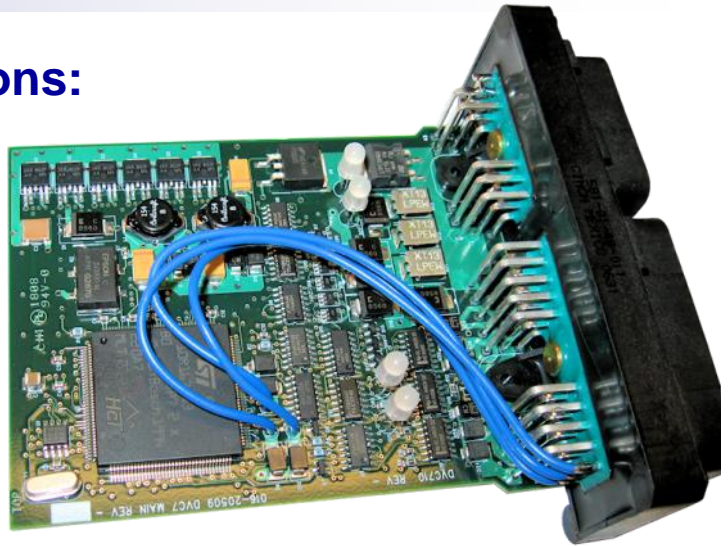
- Operates with ALL major OEM electro-hydraulic equipment
- Sealed and protected to >IP68 (NEMA 6P)
- Unique 'Solid' potting with flame retardant materials
- SAE-J1939 & HCT-CAN communication protocols
- Transient suppression for use on all mobile equipment
- SAE-J1455 for 'Load-dump' protection
- Patented **Intella™** system configuration software for fast implementation
- Industry standard Cinch or Metripack 18 and 30 way connectors used
- Comprehensive on-line literature, manuals, user guides and application information

www.hctcontrols.com

DVC-710 Advance Specification Information

Controller Advance Specifications:

- Single, multi-layer printed circuit board
- High current capacity parts for reliability
- 10 bit resolution for accuracy and controllability
- Proven circuit technology used throughout design
- RoHS compliant components used exclusively
- Intella™ software programmable
- IEC 61131-3 software compliant (Future Option)

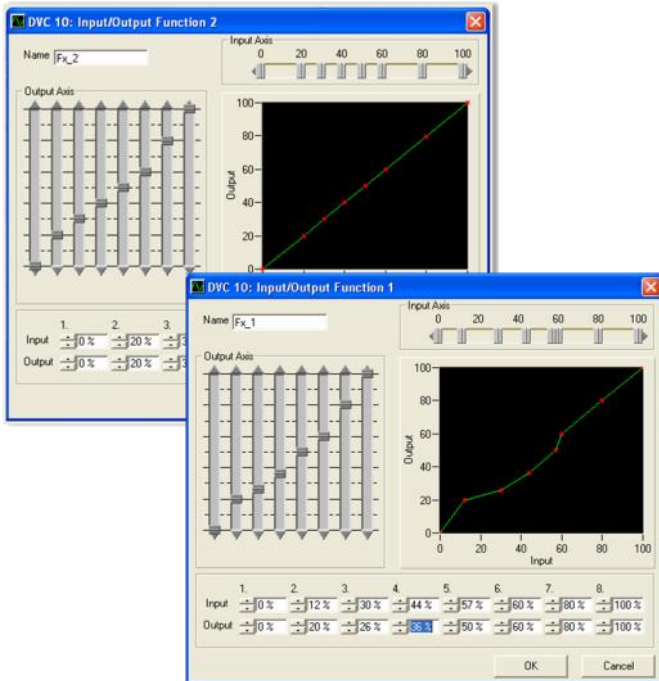


Supply Voltage:	9VDC to 30VDC
Supply Protection:	SAE J1455 compliant - Load dump tested. Internal surge protection - external fuse required for HCT warranty compliance
Module Protection:	Over temperature warning/shutdown - software controlled default options Under voltage shutdown at <9VDC - User software controlled options
Communications:	2 x separate CAN open ports (DeviceNet, SAE J1939 protocols compliant) 1 x RS232 serial port (PC programming, Graphic display port e.t.c.)
User Voltage / Type:	1 off / +5VDC ±5% @ 250mA (internally current limited and protected)
Analog Inputs / Type:	3 off / Voltage only / 100K input impedance / Software controlled for Lo-HI or Hi-Lo
Analog Input(s) range:	0 to +5VDC max only (can be software configured to act as digital inputs)
Universal Inputs / Type:	3 off / Voltage, Current, Pulse, Digital or PWM (software selectable / settable)
Universal Input(s) range:	0 to +5VDC, 0 to +10VDC, 0 to 20mA, 0 to 24Khz (across all 3), 30 to 500Hz PWM
Digital Inputs / Type:	8 off / (1 specific (Digi I/P 1) for remote enable, software selectable / settable)
Digital Input(s) range:	0 to +5VDC max (pulled to GND internally through 33K)
Digital Outputs / Type:	6 off / High Sided
Digital Output(s) range:	Upto 3 amps each max
PWM Outputs / Type:	3 off / Auto ranging for optimized resolution
PWM Output(s) range:	0 to 3Amps max
Diagnostic Indicators:	4 off - MS (Module status), NS (Node status), Default Error status, O/P PWM %
NEMA / IP rating:	NEMA 6P / IP 68
Connector type:	1 x Cinch/Metripack 30 way male and 1 x Cinch/Metripack 18 way male.
Operating Temp. Range:	-40 to +85 Centigrade (-40F to +185F)
Storage Temp. Range:	-40 to +100 Centigrade (-40F to +212F)

DVC-710 Advance Specification Information

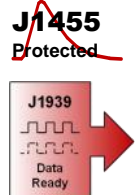
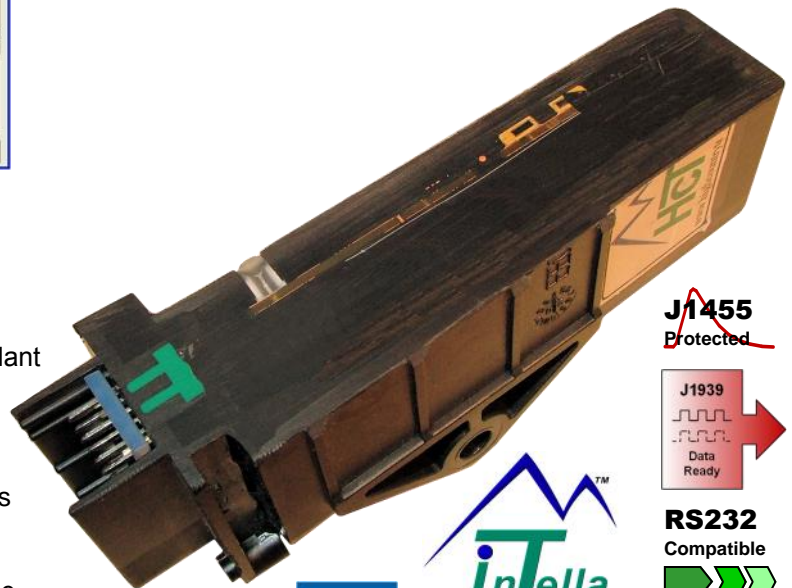
Input / Output Function Curve:

- Unique HCT patented feature
- Each output can be different shape if required
- Set output current shape to operational need
- Generate custom Input-to-Output relationships
- Linearize valve performance simply and easily
- Optimize HP and torque 'knee-point' usage
- Entered, calculated or Drag-and-Drop 'slider' setting



Environmental Protection:

- Solid 'Pot' using 2 part, black epoxy resin encapsulant
- Flame resistant / retardant material
- No voids, spaces, air gaps or moisture traps
- Does not expand or shrink in temperature extremes
- Hermetic seal over total module
- Impervious to vibration, liquids or mechanical abuse
- Can be mounted at any location to suit application



Quality Assurance:

- RoHS compliant controller series
- Designed, Built and manufactured in-house by HCT
- Highest quality components sourced for reliability
- Signature 'Potting' process for extreme durability
- Extensive field trials on BETA hardware ongoing
- Intensive Intella™ software trials being undertaken



Product Compatibility:

- Not designed to be backward compatible with existing DVC10 master controller or expansion modules.
- DVC 722 , DVC 741 and DVC 750 expansion units available for system usage and integration
- DVC 710 will be more versatile in configuration than previous generations needing less peripheral modules
- Migrate existing DVC application code with minimal changes to take account of new DVC 710 hardware

Product Availability:

- Production release units available for standard 4-6week delivery (expedite options available if needed)
- Check for your updated version of DVC 710 Intella™ with HCT customer service
- IEC 61131-3 (CoDeSys) compliant programming interface (advanced option planned in 2012)

- ❖ Mining & Exploration
- ❖ Agriculture
- ❖ Cranes & lifts
- ❖ Refuse & Re-cycling
- ❖ Construction
- ❖ Off-Road vehicles
- ❖ Forestry, Wood & Pulp
- ❖ Reclamation & Salvage
- ❖ Oil Field & Sands
- ❖ Demolition Equipment
- ❖ Cooling Solutions
- ❖ Military Apparatus
- ❖ Specialty Use
- ❖ Remote Control
- ❖ Power Generation
- ❖ Emission Controls
- ❖ Integrated Drivers
- ❖ Valve & Pump Controls



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www.hctcontrols.com

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